# PATENT COOPERATION TREATY

From the INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY  TO: KELLY A. GARDNER SCIENTIFIC-ATLANTA, INC. INTELLECTUAL PROPERTY DEPARTMENT		PCT				
5030 SUGARLOAF PWKY, (AT			WRITTEN OPINION			
LAWRENCEVILLE, GA 30044		(PCT Rule 66)				
,		Date of Mailing				
		(day/month/year) 25 JULZU01				
Applicant's or agent's file reference			rithin TWO months			
F-5704-PC			om the above date of mailing			
International application No. International filing dat		c (day/month/year)	Priority date (day/month/year)			
PCT/US00/15952	09 JUNE 2000		11 JUNE 1999			
International Patent Classification (IPC) Please See Supplemental Sheet.	or both national classifi	cation and IPC				
Applicant SCIENTIFIC-ATLANTA						
This written opinion is the first	(first, etc.)	drawn by this Interns	tional Preliminary Examining Authority.			
2. This opinion contains indications relating to the following items:						
I X Basis of the opinion						
II Priority						
III Non-eatablishment of	opinion with regard to	novelty, inventive sta	sp or industrial applicability			
IV Lack of unity of inve	ention					
V X Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement						
VI Certain documents cited						
VII Certain defects in the	international applicatio	n				
VIII Certain observations on the international application						
3. The applicant is hereby invited to reply to this opinion.						
	By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.					
For the examiner's	Also For an additional opportunity to submit amendments, see Rule 66.4. For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis. For an informal communication with the examiner, see Rule 66.6.					
If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.						
The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 11 OCTOBER 2001						
		100				
Name and mailing address of the IPEA/ Commissioner of Patents and Traden		Authorized office	4-			
Box PCT		VIVEK SRIVA				

Facsimile No. (703) 305-3230

Form PCT/IPEA/408 (cover sheet) (July 1998)\*

Telephone No. (703) 305-4038

SCIENTIFIC-ATLANTA, INC.

## WRITTEN OPINION

International application No.

PCT/US00/15952

L DI	isis of the opi	nion					
1. With	record to the ele	ements of the interna	tional application:*				
[V]		nal application as					
岩	the descriptio			l			
X	pages	1-27		, as originally filed			
	pages	NONE		, filed with the demand			
	pages	NONE	, filed with the letter o				
x	the claims:						
	pages	28-31		, as originally filed			
	pages	NONE	, as amended (together				
	pages	NONE	61 1 1 1 1 1 1 1 1 1 1 1 1 1	, filed with the demand			
	pages	NONE	, filed with the letter of				
ΓΨI	the drawings:						
A	pages	1-4		, as originally filed			
	pages	NONE		, filed with the demand			
	pages	NONE	, filed with the letter of				
			,				
х	the sequence l	isting part of the d	escription:				
	pages	NONE		, as originally filed			
	pages	NONE		, filed with the demand			
	pages	NONE	, filed with the letter of				
	the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).  the language of publication of the international application (under Rule 48.3(b)).  the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).						
		nucleotide and/or a of the sequence list		national application, the written opinion was			
	contained in t	he international a	oplication in printed form.	44.5			
П	filed together	with the internati	onal application in computer readable	form.			
$\Box$	furnished subs	equently to this A	authority in written form.				
	furnished subs	equently to this A	authority in computer readable form.				
	The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.						
	The statement t been furnished.	hat the information	recorded in computer readable form is ide	ntical to the writen sequence listing has			
4. X	The amendme	nts have resulted	in the cancellation of:				
	X the desc	ription, pages	NONE				
	X the clair	ns, Nos.	NONE				
		vings, sheets/fig	NONE				
5. 🔲	This opinion ha	s been drawn as if	(some of) the amendments had not been mandicated in the Supplemental Box (Rule 70				
* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed".							

#### WRITTEN OPINION

International application No. PCT/US00/15952

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability;

_	Citations and Capitalians supporting rates suscessed				
1.	statement				
	Novelty (N)	Claims	(Please See supplemental sheet)	YES	
		Claims	(Please See supplemental sheet)	NO	
	Inventive Step (IS)	Claims	(Please See supplemental sheet)	YES	
	• • •	Claims	(Please See supplemental sheet)	NO	
	Industrial Applicability (IA)	Claims	(Picase See supplemental sheet)	YES	
		Claims	(Please See supplemental sheet)	NO	

## 2. citations and explanations

Claims 1-4, 7, 9, 10, 13-15, 17 and 19-23 lack novely under PCT Article 33(2) as being anticipated by Brown. Constitering claims 1, 7, 14 and 19, Brown discloses the claimed digital home communication terminal and the claimed manager and system for allocating bandwidth in a digital broadband system (so 13 line 22 - col 5 line 50, col 7 line 13 - col 8 line 30, fig 34, fig 4).

Considering claims 2, 9, and 21, Brown discloses the claimed video-on-demand (col 3 line 52 - col 4 line 15).

Considering claims 3, 13 and 22, Brown discloses the claimed content delivery mode (see NVOD in col 7 lines 13 -

Considering claims 4, 10, 17 and 23, Brown discloses the claimed video-on-demand request (col 3 line 52 - col 4 line

15).

Considering claim 15, Brown discloses the claimed tuner (col 3 line 52 - col 4 line 15).

Considering claim 20, Brown discloses the claimed bandwidth allocation schedule (col 3 line 52 - col 4 line 15, col 7 line 13 - col 8 line 30).

Claims 5, 6, 8, 11, 12, 16, 18 and 24-26 lack an inventive step under PCT Article 33(3) as being obvious over Brown. It would have been obvious to modify Brown to include the claimed features.

Regarding claim 5, 11, 18 and 24, Brown fails to disclose the claimed allocation criteria received from the subscriber comprises a plurality of subscriber reservation requests with at least two satingned priorities. It would have been obvious to modify Brown to include the claimed two priorities to provide monitoring of which programs a user finds interesting to provide customized programming to a user.

Regarding claims 6, 12, 25 and 26 frown fails to disclose a bandwidth allocation manager processing a plurality of allocation criteria according to a statistical model to determine a bandwidth allocation schedule. It would have no obvious to include a bandwidth allocation manager for processing a plurality of allocation-criteria according to a statistical model and to determine a bandwidth allocation schedule to allocate bandwidth in accordance with peak and non-peak times to maximize the (Continued on Supplemental Sheet.)

#### WRITTEN OPINION

International application No.

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#### Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

#### TIME LIMIT:

The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.

#### CLASSIFICATION:

The International Patent Classification (IPC) and/or the National classification are as listed below: IPC(7): HOAN 7/173, 5/445; GOGF 3/00, 13/00 and US Cl.: 725/86, 87, 93, 95, 96, 97, 44, 45, 46, 47; 375/240, 2 40.01, 370/225, 229, 230

#### V. 1. REASONED STATEMENTS:

The opinion as to Novelty was positive (YES) with respect to claims 5, 6, 8, 11, 12, 16, 18, 24-26,

The opinion as to Novelty was negative (NO) with respect to claims 1-4, 7, 9, 10, 13-15, 17, 19-23.

The opinion as to Inventive Step was positive (YES) with respect to claims NONE.

The opinion as to Inventive Step was negative (NO) with respect to claims 1-26.

The opinion as to Industrial Applicability was positive (YES) with respect to claims 1-26.

The opinion as to Industrial Applicability was negative (NO) with respect to claims NONE.

# V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued): efficiency of allocating bandwidth according to the traffic and congestion on the network.

Regarding claim 8, Brown fails to disclose the claimed VOD application server in communication with the bandwidth allocation manager, wherein the VOD application server transmits a list of available content delivery modes to the bandwidth allocation manager.

Brown discloses determining a VOD or NVOD mode of transmission depending on the available bandwidth. It would have been obvious to include the chimed VOD server in communication with the bandwidth allocation manager to provide the available modes of servicing a subscribers request based on the bandwidth available to efficiently allocate bandwidth to prevent transmitting data above the threshold capacity of the network.

Regarding claim 16, Brown fails to disclose the claimed channel allocation information comprises VOD catalogue data. It would have been obvious to provide channel allocation information to provide a user with an organized list of available programming from a which a user can select.

NEW CITATIONS	
US 5,771,435 A (BROWN) 23 June 1998, see col. 2, lines 47-67, col. 3, lines 22-67, col. 4, lines 1-67, col. 6, li	ines 1-36
col. 7, lines 1-67, col. 8, lines 13-67	

US 5,682,597 A (GANEK et al) 28 October 1997, Abstract